

A Study on Clinical Profile of Acute Appendicitis in Rural Medical College

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ABSTRACT

Background: Acute appendicitis is one of the emergency conditions in Surgical practice. It commonly affects all age groups mostly in the young age group. Males are commonly affected than, females. More than 240,000 cases are reported annually in the United States. The current annual incidence is 10 cases per 100,000 population, we have diagnosed the cases on clinical suspicion and investigations.

Aim of the Study: To study the clinical features, incidence of acute appendicitis in rural medical college.

Material and Methods: We have conducted this study on 120 patients in one 1year in LNCT Medical College. In the department of General Surgery.

Results: We have conducted this study in 120 patients out of these 120 males are 74 females are 46. The age groups involved is from 20years to 60Yrs. The common age group is between 20 and 40 years.

Conclusion: Acute appendicitis can affect any individual irrespective of age, Sex, Socioeconomic Status. It should be suspected in patients with pain abdomen, fever, vomitings.

delayed diagnosis, and delayed management may lead to mortality.

Keywords: Appendicitis, Pain Abdomen, Perforation, Morbidity, Mortality.

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INTRODUCTION

The appendix is a small-shaped organ attached to the large intestine. The function of the appendix is not known appendicitis occurs when the appendix becomes inflamed. The lifetime danger of acute appendicitis is evaluated to be 7 to 8%.¹

In Asian and African countries, the incidence of acute appendicitis is probably lower because of the dietary habits of people of this region. Dietary fiber is thought to decrease the viscosity of faeces decrease bowel transit time and discourage the formation of fecolith, which predisposes individuals to obstruction of the appendiceal lumen.²

The vermiform appendix is considered to be a vestigial organ, its importance in surgery due only to its propensity for inflammation which results in a clinical syndrome known as acute appendicitis. Acute appendicitis is a common problem in the adolescent age group and young adults. It occurs as a sudden onset. Occasionally it leads to perforation. The lifetime risk of developing acute appendicitis is approximately 7%.³

The Incidence of appendicitis gradually rises from birth peaks in the 2nd decade and gradually declines in the geriatric age group. In recent years the number of cases in patients aged 40 to 70 years has increased by 71%.⁴

It is evident from reviewing the vast amount of literature published on the disease process in the appendix that it is difficult to diagnose appendicitis, especially in very young and very old patients. Clinician must have high index of suspicion in all age groups.

MATERIALS AND METHODS

We have conducted this study in LNCT Medical College for 1 year in the department of General Surgery. We have examined 120 patients, out of these 120. 74 are males and 36 are females. The age group involved is from 20 years to 60 years. The common age group is 20 to 30yrs.

All the patients admitted to the emergency department are examined in detail and after taking the history the blood samples were collected and sent for complete blood picture, Random blood sugar, blood urea, serum creatine, serum electrolytes and blood grouping, and cross-matching. The other investigations done were plain X-ray abdomen in erect posture and ultrasonography. The entire data is collected systemically and computerized by using MS. Office.

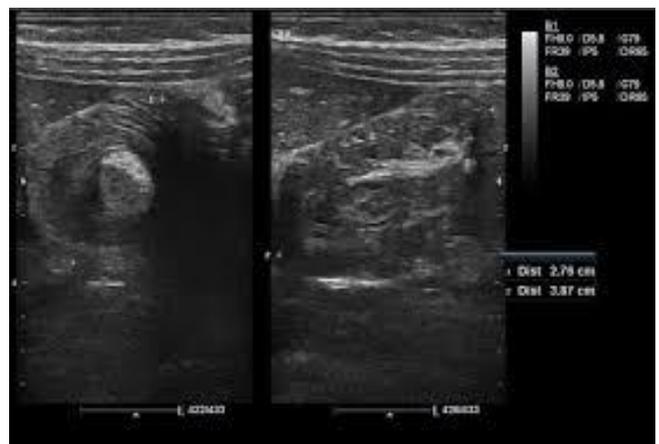
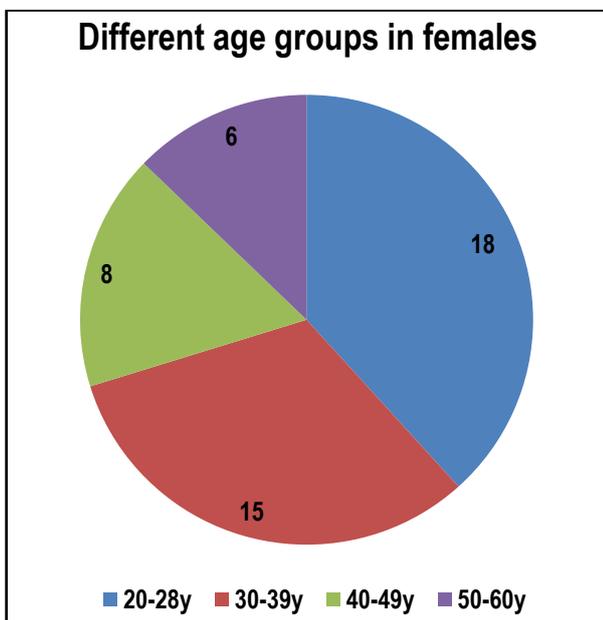
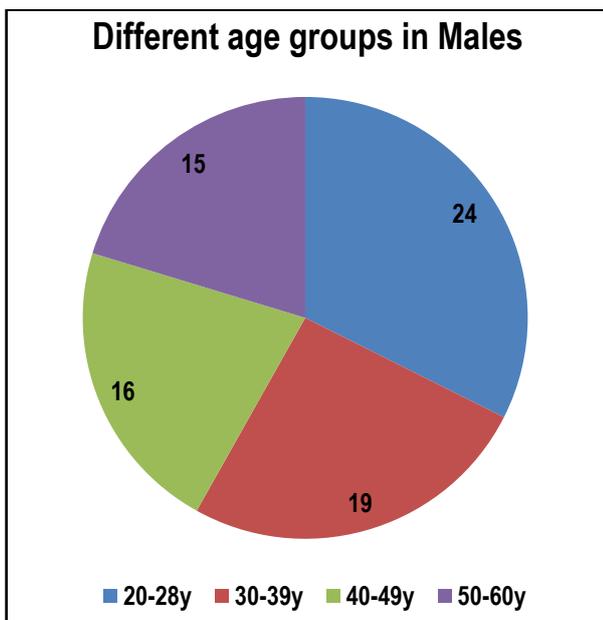
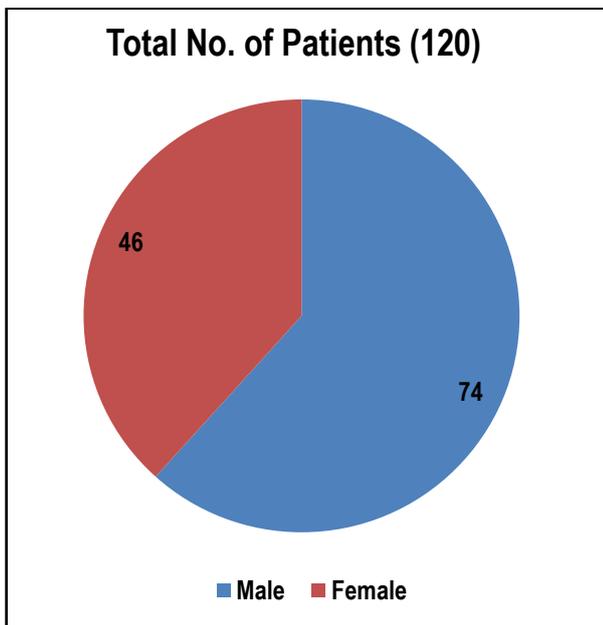


Fig 1: UltraSonogram Showing Features of Acute Appendicitis

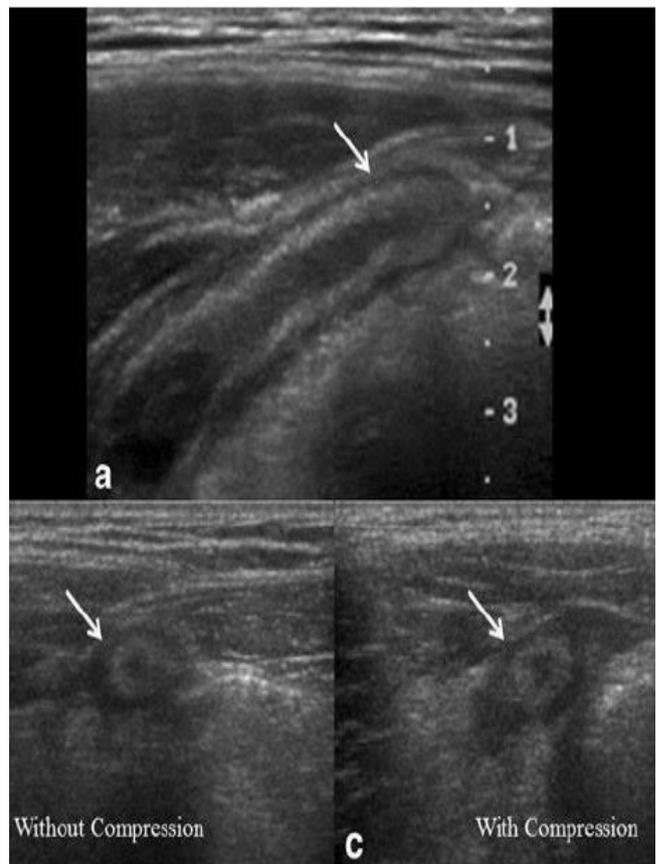


Fig 2: Perforated appendix



Fig 3: Appendicular Abscess

Table I: Different age groups.

S.No	Age group in yr	Males (74)	Percentage (%)	Females (46)	Percentage (%)
1	20-29	24	32.43%	18	39.13%
2	30-39	19	25.67%	15	36.5%
3	40-49	16	21.6%	8	17.39%
4	50-60	15	19.3	6	13.6%

Table II: Common Symptoms

S.No	Symptoms	No.of Pts Males (74)	No.of Pts Females (46)
1	Pain abdomen	74(100%)	46(100%)
2	Fever	67(90.2%)	40(83.6%)
3	Vomitings	62(81.6%)	38(81.5%)
4	Others	59(78.5%)	35(76.7%)

Table III: Complications.

S.No	Complications	No.of Patients M (74)	No. of Patient F (46)
1	Perforation	6(8.1%)	5(9.5%)
2	Gangrene	3(4.5%)	2(4.5%)
3	Others	1(4.2%)	1(2.2%)

RESULTS AND DISCUSSION

We have examined a total no. of patients 120 out of these 120 patients 74 are male patients and 46 are female patients. The age group involved is between 20yrs and 60yrs. The commonly affected age group is 2nd and 3rd decade. In this age group the no. of patients are 43(56.3%) whereas in the 6th decade it is 19.3% in males and 13.6% in females. The study conducted by Lohar HP et al shows 64.7% in the 2nd decade and 14.8% in the 6th decade.⁵ The common symptoms and signs in acute appendicitis are pain abdomen, which is mainly in the right upper quadrant, Fever, Vomiting, diarrhea, Tachycardia, dehydration, and sometimes associated with electrolyte abnormalities, guarding and rigidity of abdomen is also seen. The most common symptom is pain abdomen. It starts near the epigastrium and mostly radiates to Rt Iliac Fossa. Sometimes it depends on the location of the Caecum. In our study pain abdomen was noticed in 100% of patients. Whereas the study conducted by Kamath et al it was noticed 92.7%.⁶ The other symptoms include fever it is noticed in 90.2% of Males; 83.6% in Females and Vomiting were noticed in 81.6% Males and 80.5% in females. The studies conducted by Chaudhary et al show nearly the same results.⁷

The complications noticed in our study were perforation of the appendix (6no.pts) 8.1% in Males; 5 no in females 9.3% in females. Gangrenous appendicitis was noticed in 3 patients in Males (4.5%); 2 patients in females (4.6%). And other complications are 1.2% in Males and 2.7% in Females. 3 Male patients and 2 Female patients have died mostly due to gangrene and other comorbid conditions like Diabetes, CAD, and Renal Failure.

The common postoperative complications noticed in our study are wound infection at the surgical site, wound dehiscence, fecal fistula, the wound infections were noted in 22.6% of males and 25.7% of females. wound dehiscence was noted in 13.7% and 14.9% respectively and the fecal fistula was noted in 2.3% in males and 1.9% in female patients.

Acute appendicitis is a common surgical emergency condition in India and worldwide also. In Asian and African Countries, the incidence is low when compared to western countries probably because of dietary habits. The lifetime risk of appendicitis has been estimated at 7 to 8% in Males and 6 to 7% in Females.⁸ The common age groups affected are 2nd and 3rd decade. Addis Dg et al observed that highest incidence of primary positive appendectomy was found in persons aged 10-19yrs, while Singhal et al found that 20 to 30 years age group is commonly affected. In our study most common presenting symptoms are pain abdomen 100% fever 90%. Vomiting 82% were noted. And pain migrating to the right Iliac fossa were noted in more than 62% of patients. The increased leucocyte count and migration pain abdomen have been considered to be a useful finding in the diagnosis of acute appendicitis. By ultrasonography 87.9% of cases have been diagnosed. The signs in the US abdomen are a perpendicular infiltrator, a visible cockade, and an appendix larger than 12mm in diameter.⁹ Although only 4.9% of appendices grossly appeared normal during surgery, histopathology showed 12.6% to be normal.

The perforation is ranges from 6.7% to 24.5%. Colron et al proposed that a delay in presentation of more than 12 hours after onset of symptoms increased the perforation rate. In our rural settings, most patients approached local doctors who are not qualified then they will develop the complications and referred to a tertiary care center.¹⁰ The diagnosis of acute appendicitis in our setting is based on suspicion and clinical features, along with a complete blood picture followed by an ultrasound scan.

A study conducted by Al Omran showed that appendicitis is more common in males in the age group of 11 to 20years in most of the study appendicitis is common in the young age group. In our study also it is 39%. The study conducted by Nudesh of Ircmion University showed that appendicitis in 11 to 20years age group is male and 20 to 30years group in females. The study conducted by

Gallerani of Italy showed that appendicitis peaks in summer and not in spring. The classic form of appendicitis may be promptly diagnosed and treated. In some cases, a CT scan of the abdomen and diagnostic laparoscopy is helpful in diagnosis. If left untreated appendicitis has been presented for severe complications including perforation or sepsis may even cause death.

CONCLUSION

Acute appendicitis is common in India. It presents mainly as pain abdomen. The complications due to appendicitis are high when compared to western countries because of delayed diagnosis and delayed management. The cure rate is very high if the diagnosis is made early. It should be suspected irrespective of age, sex, and socio-economic status it commonly affects young groups (2nd and 3rd decade).

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